



US008507587B2

(12) **United States Patent**
Gozum et al.

(10) **Patent No.:** **US 8,507,587 B2**
(45) **Date of Patent:** **Aug. 13, 2013**

(54) **LIGHTWEIGHT WALL REPAIR
COMPOUNDS**

(75) Inventors: **John E. Gozum**, Stillwater, MN (US);
Richard A. Mallo, Woodbury, MN (US)

(73) Assignee: **3M Innovative Properties Company**,
St. Paul, MN (US)

(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 290 days.

(21) Appl. No.: **12/997,212**

(22) PCT Filed: **Jun. 1, 2009**

(86) PCT No.: **PCT/US2009/045778**

§ 371 (c)(1),
(2), (4) Date: **Dec. 9, 2010**

(87) PCT Pub. No.: **WO2009/151988**

PCT Pub. Date: **Dec. 17, 2009**

(65) **Prior Publication Data**

US 2011/0086945 A1 Apr. 14, 2011

Related U.S. Application Data

(60) Provisional application No. 61/061,274, filed on Jun.
13, 2008.

(51) **Int. Cl.**
C08J 9/32 (2006.01)

(52) **U.S. Cl.**
USPC **523/218**; 523/219; 523/220; 524/425;
524/492; 524/493

(58) **Field of Classification Search**
USPC 523/219, 218, 220; 524/425, 492,
524/493

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,386,223	A	6/1968	Wegwerth
3,907,725	A	9/1975	Forte et al.
4,283,320	A	8/1981	Carroll et al.
4,391,647	A	7/1983	Deer et al.
4,629,751	A	12/1986	Montgomery
4,824,879	A	4/1989	Montgomery et al.
4,904,709	A	2/1990	Hermele
5,112,400	A	5/1992	Nae et al.
5,336,318	A	8/1994	Attard et al.
5,863,975	A	1/1999	Whitton et al.
6,358,309	B1	3/2002	Langford
7,037,865	B1	5/2006	Kimberly
2006/0096074	A1	5/2006	Foster et al.
2006/0142456	A1*	6/2006	Langford 524/424

OTHER PUBLICATIONS

3M Material Safety Data Sheet: 3M Brand Spakfast Wall Repair
Compound, (2000).

3M Material Safety Data Sheet: 3M Wall Repair Compound, (1996).

* cited by examiner

Primary Examiner — Edward Cain

(74) *Attorney, Agent, or Firm* — Kenneth B. Wood

(57) **ABSTRACT**

Herein are disclosed wall repair compounds comprising at least one or more polymeric binder latex emulsions, one or more inorganic fillers, and comprising an amount of organic polymeric thickener that is less than about 0.1 percent by weight based on the total weight of the wall repair compound. In certain embodiments, the wall repair compound comprises an inorganic filler system selected such that synthetic inorganic fillers comprise essentially 100 percent of the inorganic filler used. In certain embodiments, the wall repair compound comprises one or more organic ether smoothing agents.

32 Claims, No Drawings